

CLAIMS

What is claimed is:

1. A method for grapheme-phoneme conversion of a word which is not contained as a whole in a pronunciation lexicon, comprising:
 - decomposing the word into subwords;
 - performing grapheme-phoneme conversion of the subwords to obtain transcriptions of the subwords;
 - sequencing the transcriptions of the subwords are sequenced to produce at least one interface between the transcriptions of the subwords,
 - determining phonemes of the subwords bordering on the at least one interface;
 - determining graphemes of the subwords which generate the phonemes bordering on the at least one interface; and
 - recalculating grapheme-phoneme conversion of the graphemes bordering on the at least one interface.
2. The method as claimed in claim 1, wherein said recalculating is performed by a neural network.
3. The method as claimed in claim 1, wherein said recalculating is performed using a lexicon.
4. The method as claimed in claim 1,
 - wherein said decomposing includes searching for the subwords of the word in a database containing phonetic transcriptions of words, and
 - wherein said performing includes selecting a phonetic transcription recorded in the database for each subword found in the database.
5. The method as claimed in claim 4, wherein in addition to the subword , the word has at least one further constituent which is not recorded in the database, and
 - wherein said method further comprises phonetically transcribing the at least one further constituent by an out-of-vocabulary method.

6. The method as claimed in claim 5, wherein the out-of-vocabulary method is performed by one of a neural network and an expert system.

7. The method as claimed in claim 1, wherein the word is decomposed into subwords of a predefined minimum length.

8. At least one computer-readable medium storing at least one computer program to perform a method for grapheme-phoneme conversion of a word which is not contained as a whole in a pronunciation lexicon, said method comprising:

decomposing the word into subwords;
performing grapheme-phoneme conversion of the subwords to obtain transcriptions of the subwords;
sequencing the transcriptions of the subwords are sequenced to produce at least one interface between the transcriptions of the subwords,
determining phonemes of the subwords bordering on the at least one interface;
determining graphemes of the subwords which generate the phonemes bordering on the at least one interface; and
recalculating grapheme-phoneme conversion of the graphemes bordering on the at least one interface.

9. The at least one computer-readable medium as claimed in claim 8, wherein said recalculating is performed by one of a neural network and an expert system.

10. The at least one computer-readable medium as claimed in claim 8, wherein said recalculating is performed using a lexicon.

11. The at least one computer-readable medium as claimed in claim 8,
wherein said decomposing includes searching for the subwords of the word in a database containing phonetic transcriptions of words, and
wherein said performing includes selecting a phonetic transcription recorded in the database for each subword found in the database.

12. The at least one computer-readable medium as claimed in claim 11, wherein in addition to the subword, the word has at least one further constituent which is not recorded in the database, and

wherein said method further comprises phonetically transcribing the at least one further constituent by an out-of-vocabulary method.

13. The at least one computer-readable medium as claimed in claim 12, wherein the out-of-vocabulary method is performed by a neural network.

14. The at least one computer-readable medium as claimed in claim 8, wherein the word is decomposed into subwords of a predefined minimum length.

15. A computer system for storing at least one computer program to perform a method for grapheme-phoneme conversion of a word which is not contained as a whole in a pronunciation lexicon, comprising:

means for decomposing the word into subwords;

means for performing grapheme-phoneme conversion of the subwords to obtain transcriptions of the subwords;

means for sequencing the transcriptions of the subwords are sequenced to produce at least one interface between the transcriptions of the subwords,

means for determining phonemes of the subwords bordering on the at least one interface;

means for determining graphemes of the subwords which generate the phonemes bordering on the at least one interface; and

means for recalculating grapheme-phoneme conversion of the graphemes bordering on the at least one interface.

16. The computer system as claimed in claim 15, wherein said recalculating means includes a neural network.

17. The computer system as claimed in claim 15, wherein said recalculating means uses a lexicon.

18. The computer system as claimed in claim 15,

wherein said decomposing means includes a database containing phonetic transcriptions of words and searches for the subwords of the word in the database, and

wherein said performing includes means for selecting a phonetic transcription recorded in the database for each subword found in the database.

19. The computer system as claimed in claim 18, wherein in addition to the subword , the word has at least one further constituent which is not recorded in the database, and

wherein said computer system further comprises transcribing means for phonetically transcribing the at least one further constituent by an out-of-vocabulary method.

20. The computer system as claimed in claim 19, wherein said transcribing means includes one of a neural network and an expert system to perform the out-of-vocabulary method.

21. The computer system as claimed in claim 15, wherein said decomposing means decomposes the word into subwords of a predefined minimum length.

22. A computer system for grapheme-phoneme conversion of a word which is not contained as a whole in a pronunciation lexicon, comprising:

at least one storage device to store a computer program on a storage medium;

and

a processing unit, coupled to the at least one storage device, to load and execute the computer program to decompose the word into subwords, perform grapheme-phoneme conversion of the subwords to obtain transcriptions of the subwords; sequence the transcriptions of the subwords to produce at least one interface between the transcriptions of the subwords, determine phonemes of the subwords bordering on the at least one interface, determine graphemes of the subwords which generate the phonemes bordering on the at least one interface, recalculate the grapheme-phoneme conversion of the graphemes bordering on the at least one interface, and write the phonemes at the at least one interface into the at least one storage device after recalculation.

23. The computer system as claimed in claim 22, wherein said recalculating is performed by a neural network.

24. The computer system as claimed in claim 22, wherein said recalculating is performed using a lexicon.

25. The computer system as claimed in claim 22,
wherein said decomposing includes searching for the subwords of the word in a database containing phonetic transcriptions of words, and
wherein said performing includes selecting a phonetic transcription recorded in the database for each subword found in the database.

26. The computer system as claimed in claim 25, wherein in addition to the subword , the word has at least one further constituent which is not recorded in the database, and
wherein said process unit further phonetically transcribes the at least one further constituent by an out-of-vocabulary method.

27. The computer system as claimed in claim 22, wherein the word is decomposed into subwords of a predefined minimum length.